WINFORUM

June 1, 1994

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W. - Room 222
Washington, D.C. 20554

Re: Ex Parte Presentation -- PR Docket No. 93-61

Dear Mr. Caton:

The attached letter, which contains WINForum's comments and position regarding issues addressed in the referenced proceeding was forwarded to Dr. Thomas Stanley today. Two copies of this letter are hereby submitted to the Secretary's office in accordance with Section 1.1206(a)(1) of the Commission's rules.

Should you have any questions concerning this correspondence, I can be contacted at (202) 429-5138.

Sincerely,

Administrator
The Wireless Information Networks Forum, Inc.

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FORUM

June 1, 1994

Dr. Thomas Stanley
Federal Communications Commission
Office of Engineering and Technology
2025 M Street, N.W.
Room 7002
Washington, D.C. 20554

Re: Docket 93-61

Dear Dr. Stanley:

The Wireless Information Networks Forum, Inc. (WINForum) would like to add its comments to those already received from industry groups in opposition to the proposal to establish and license a "new" location and monitoring service (LMS) in the 902- 928 MHz ISM band. WINForum concurs in the opposition detailed in the many filings placed on the record by equipment manufacturers associations such as the Telecommunications Industry Association (TIA), the Electronics Industries Association (EIA), the Part 15 Coalition and dozens of other interested parties.

WINForum was formed several years ago as an advisory body to the FCC to represent the views of prospective manufacturers of unlicensed PCS devices. These views were articulated through WINForum's technical committee. The committee developed a framework to provide for the co-existence of devices and systems based on differing technologies, produced by multiple manufacturers, which deliver many different types of service capabilities. This framework was titled the "Spectrum Etiquette" and its complete version was submitted to the Commission last summer and formed the basis for the technical framework adopted by the Commission in its order last fall in the PCS proceeding.

The considerable technical expertise of WINForum, in the area of multiple unlicensed devices coexisting in the same bandwidth, was focused only on the PCS band. However, with that work substantially complete, WINForum believes it can provide the Commission with comments in the LMS proceeding which would provide a "new voice" addressing the core issue of the proceeding which is "whether Part 15 devices and wideband pulse ranging LMS systems can co-exist."

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The official position of WINForum is reflected in the attached position paper. However, the following comments are presented to help establish a full technical record in this proceeding.

The proposal to license high-powered, wideband pulse-ranging systems in 16 MHz of spectrum within the 902-928 MHz band is a failure to recognize several key changes that have occurred over the years since the first Teletrac proposal was presented.

A cursory review of the record in the LMS proceeding provides dramatic empirical, as well as reasoned technical evidence that co-existence between unlicensed Part 15 devices and licensed wideband pulse ranging LMS systems, on a minimal interference basis, is fraught with risk. The LMS systems will be seriously degraded by interference from Part 15 devices operating in close proximity to LMS receivers. Moreover, the location of the Part 15 devices is random in nature and in some cases, such as consumer-owned spread spectrum cordless phones, nomadic. Therefore, there is little anyone could do to locate or lessen the incidence of interference.

The "new" proposal submitted by Teletrac last January which offers to operate in less than 16 MHz of spectrum in a discrete portion of the band, does little to alter the inescapable conclusion that serious interference will be caused by Part 15 devices operating in proximity to LMS receivers. In fact, in recent comments in reply to the new Teletrac proposal, MobileVision, one of the current proponents of LMS, provided extensive analysis of the potential for interference for both indoor and outdoor Part 15 devices.

MobileVision, in its February 1, 1994 comments on the Teletrac January 26, 1994 *ex parte* concluded that Part 15 devices operating indoors (cordless phones, wireless Centrex/PBX etc.) and within one mile of an LMS receiver, would cause interference that would reduce the effective range of LMS systems by a factor of 3. MobileVision, Annex 2 at p. 21. Outdoor Part 15 devices (utility metering, security, point-to-point data links, etc.) operating within 3.6 miles of an LMS receiver would cause "very significant" interference which would be "potentially disastrous" to LMS systems.

In the opinion of WINForum, the technical hurdles which must be addressed to allow sharing in the 902-928 MHz or any ISM band between high-powered pulse ranging LMS systems and Part 15 devices are difficult to overcome. The destructive interference from randomly located Part 15 devices will degrade LMS performance to the point that possible technical solutions could make LMS technology prohibitively expensive and insupportable from a business standpoint.

Another factor that the FCC must consider is the public interest. While it is true that Part 15 users, according to the Rules, must accept interference from those devices using the 902-928 MHz band on a licensed basis, it is also true that there are now millions of Part 15 devices using low power and sharing the spectrum. How is the public interest served if those users are adversely affected?

Teletrac states that they can tolerate interference from Part 15 devices. However, WINForum believes that once the license is granted and, if service is compromised, it will not be long before Teletrac will search out and attempt to remove the Part 15 users that are causing the interference that is identified in technical analysis already on the record in this proceeding. Given the millions of consumer and commercial devices already functional under the existing Part 15 rules, removal of these devices would be a nearly impossible task as well as a major disservice to the public.

WINForum believes that in view of the conflicting opinions on the issue of Part 15 interference to LMS receivers that a field test involving existing LMS receivers and a representative sample of Part 15 devices should be scheduled. WINForum would be pleased to participate with all parties in developing a technical test plan to support such a field test. The technical data contributed by such a test would provide the Commission with a solid basis upon which to make a public interest determination in this matter.

The ultimate public interest is found in providing the public with an operationally and economically viable needed service. LMS operating in the 902-928 MHz band fails in several of these categories. If the service is needed, then the Commission should begin a proceeding to find the appropriate clear spectrum in which the service can be provided. If, however, after due consideration of all the evidence concerning interference, the Commission believes that LMS is still needed, then the Commission should begin a new proceeding to locate the appropriate clear spectrum in which this service can be provided.

In the event you have any questions, you may contact Jerry Leonard, the president of WINForum, at (407) 364-2550. A copy of this letter will be forwarded to the Secretary's office for inclusion in the record in this proceeding.

Sincerely,

Nancy A. Bekar
Administrator, WINForum

cc: Ms. Ruth Milkman, Chairman's Office
Mr. Ralph Haller, Private Radio Bureau
Dr. Michael Marcus, Field Operations Bureau

WINForum Position Paper
PR Docket 93-61

BACKGROUND: On May 28, 1992, North American Teletrac and Location Technologies, Inc. ("Teletrac") submitted to the FCC a petition for rule making asking for the expansion of the interim rules which authorize the licensing of automatic vehicle monitoring (AVM) systems. In the petition, Teletrac requested that personal location, inanimate object location and a messaging function be added to the vehicle monitoring function currently authorized by the interim rules. Further, the petition asked that two 8 MHz blocks be allocated within the 902-928 MHz band to permit wideband pulse ranging location and monitoring systems. The 902- 928 MHz band is currently occupied by Part 15 devices on an unlicensed basis, narrowband AVM systems on a licensed basis, government and amateur operations and ISM equipment.

DISCUSSION: In response to the petition, the FCC issued a notice of proposed rulemaking ("Notice"). In the Notice, the Commission proposed to broaden the permissible use beyond AVM and renamed the proposed service the Location and Monitoring Service (LMS) to better describe the expanded use. The Commission's proposal generally mirrored the Teletrac petition. The Commission proposed to license two wideband LMS licensees at 904-912 MHz and 918-926 MHz. These are the band locations in which Teletrac and a second licensee MobileVision L.P. ("MobileVision") currently hold licenses today in the top 50 cities. Few of the systems are constructed because the Commission granted a waiver to customary FCC construction requirements.

Subsequently, on January 26, 1994, Teletrac submitted a new proposal, in an Ex Parte filing with the Commission, which changes the amount of spectrum required for LMS from 16 MHz to 10 MHz (two 5 MHz LMS licensees) and recommends location at the lower end of the band. This new proposal offers implicit recognition of the interference threat that Part 15 devices constitute to their systems. In fact, Teletrac further proposes in their filing a definition of "harmful interference" which would have severe implications for future Part 15 devices in the 902-928 MHz band.

MobileVision, in their comments to the Commission on the new Teletrac proposal, provides extensive analysis verifying the interference problem. After analyzing the potential interference from indoor Part 15 devices, MobileVision concluded that "there is a possibility that indoor Part 15 devices, operating within a mile of a wideband LMS fixed site, will desensitize that site by 20 dB, effectively reducing its range by a factor of 3."

MobileVision, in its analysis of interference from outdoor Part 15 devices concludes that "any outdoor Part 15 device, within 3.6 miles of an LMS receiving site could desensitize that site by 20 dB. This is very significant interference and is potentially disastrous for LMS systems." Teletrac has consistently maintained that Part 15 devices will not interfere with their operations. Other industry associations like the Telecommunications Industry Association (TIA), the Electronics Industry Association (EIA) and the Part 15 Coalition have consistently maintained that interference from Part 15 devices, both indoor and outdoor configurations, would seriously

impact on LMS operations.

Further, the newly proposed service would contain both narrowband (AVM) and wideband LMS. In recent comments to the FCC, Teletrac submitted technical documentation that concludes that the wideband technology and the narrowband AVM technology cannot share the same spectrum. Likewise, Part 15 proponents submitted technical and empirical evidence that wideband LMS and Part 15 equipment cannot share the same spectrum.

It is this confusion over whether interference will actually occur which has delayed Commission action in this proceeding.

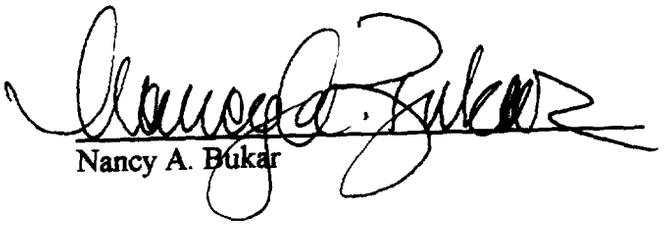
ISSUE: The key technical issue underlying all of the controversy in this proceeding is "will Part 15 devices operating in the 902-928 MHz band interfere with the operations of wideband pulse-ranging LMS systems?"

CONCLUSION: WINForum concludes that the expansion of the AVM service, coupled with the recent growth of the Part 15 industry will result in unacceptable interference from the growing number of Part 15 devices to LMS receivers.

RECOMMENDATION: Based on the technical record in this proceeding, the Commission should encourage all parties to develop a field test to determine the extent and effect of interference from Part 15 devices to operational LMS systems. Based on the results of the test, the Commission should then make the appropriate determination whether the public interest would be served by authorizing LMS in the 902-928 MHz band.

CERTIFICATE OF SERVICE

I, Nancy A. Bukar, do hereby certify that on this the 1st day of June, a copy of the foregoing correspondence was served by first class mail, postage prepaid, to the parties on the attached list.



Nancy A. Bukar

Date: June 1, 1994

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